REGION VIII

NORTH DAKOTA RISK MAP UPDATE

WINTER 2020

NDRAM IS LIVE!

NEW BASE LEVEL ENGINEERING (BLE) VIEWER — NORTH DAKOTA RISK ASSESSMENT MAPSERVICE (NDRAM) — LETS YOU ACCESS BLE DATA ACROSS THE STATE

On October 30, 2019, the North Dakota State Water Commission launched NDRAM, an online flood map data viewer.

NDRAM, designed by the Water Commission, provides flood risk information for every county in North Dakota. This user-friendly map service tool will help individuals learn about their local flood hazards. Also, residents, emergency managers, the technical community, and civic leaders can use it to get flood risk data that will help them make informed decisions about community development and flood preparedness.

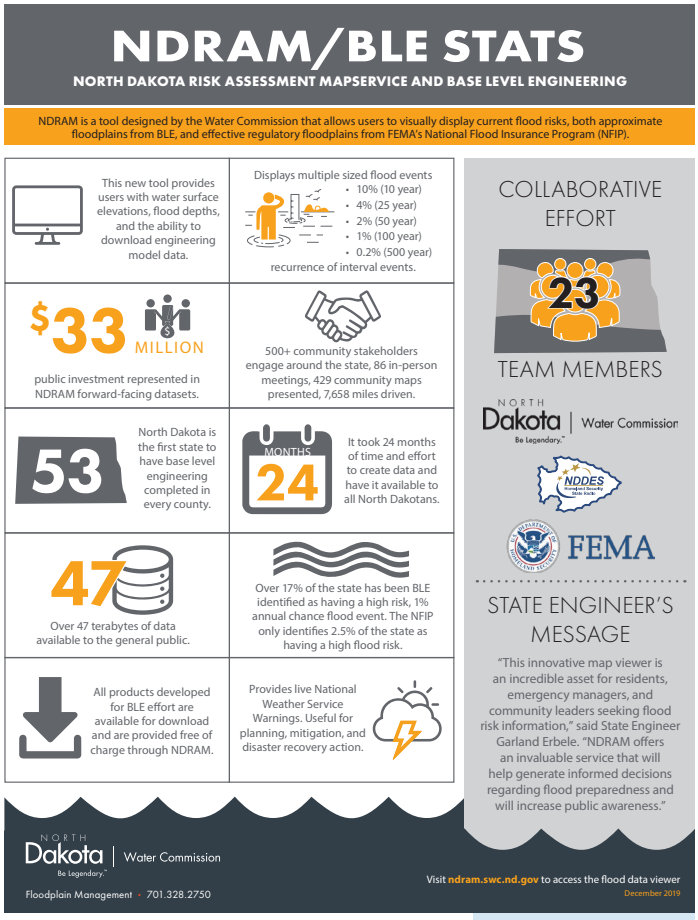
Visit ndram.swc.nd.gov to access the flood data viewer.

WHAT IS NDRAM?

NDRAM, a new web-based tool, combines new Federal data with the agency's existing IT and Geographic Information System capabilities to provide data in a user-friendly format. The Water Commission created NDRAM in collaboration with the Federal Emergency Management Agency (FEMA) Region VIII Office, using the Commission's robust technology and infrastructure.

WHAT IS BLE?

BLE is flood data created by combining high-resolution ground elevation information and modeling technology advancements that result in engineering models and flood hazard data. The BLE was made possible by previous investment in Light Detection and Ranging (LiDAR) data, which provided the high-resolution elevation information. FEMA Region VIII provided over $6 million in Federal funding for the BLE project through the Cooperating Technical Partners Program, which supported a partnership between FEMA and the State Water Commission. In 2018, North Dakota became the first State to have completed BLE data for every county. In addition to producing quality flood data, BLE helps increase public awareness, which leads to collaborative efforts to reduce potential flood risk.



NDSWC handout

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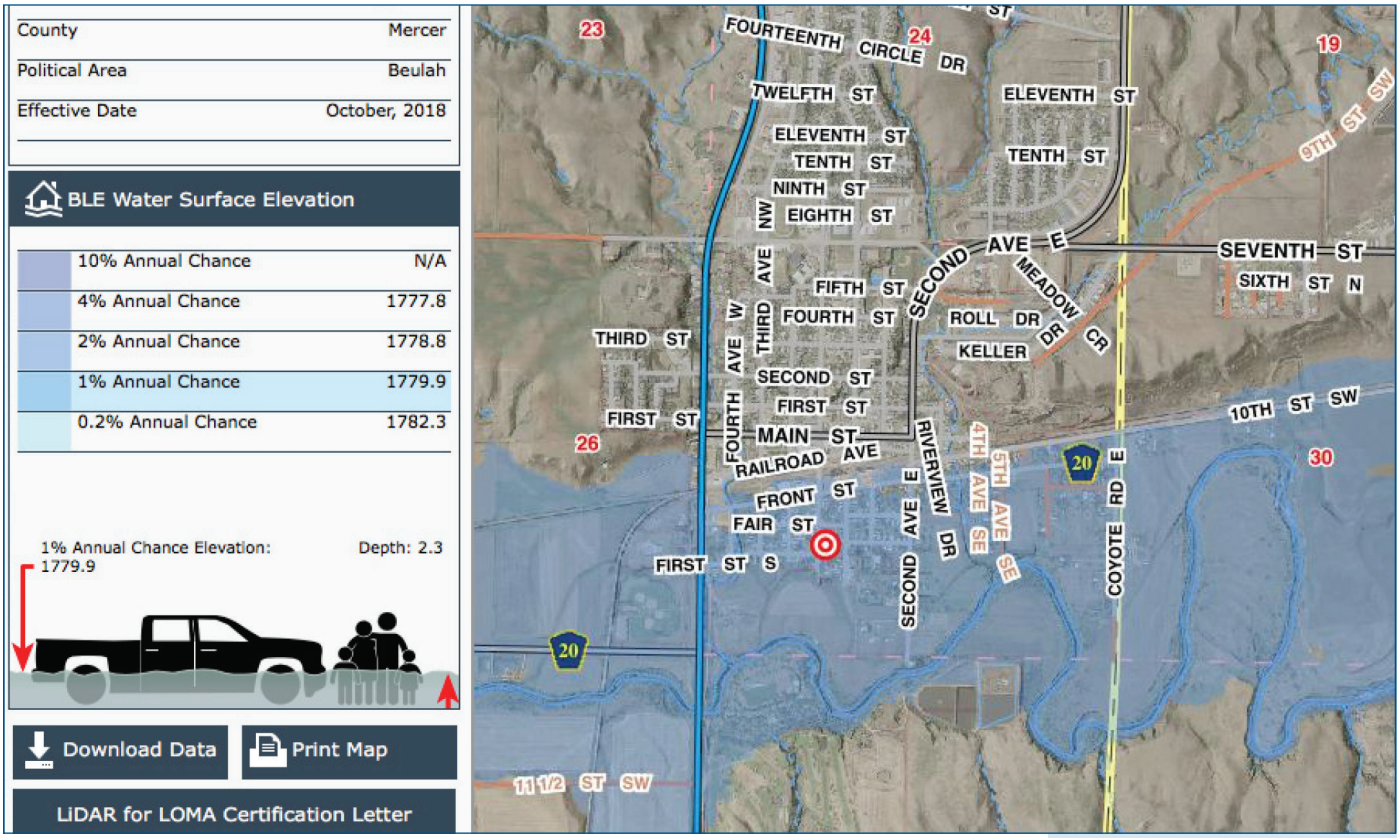
For more information on each phase of the Risk MAP process, visit **FEMA.gov** or click **http://bit.ly/NDRMsm8** to view the ND Story Map Journal.



Beulah as shown on NDRAM

NDRAM — BLE DATA DISPLAYED IN A USER-FRIENDLY FORMAT

NDRAM allows users to zoom in and visually display current flood risks throughout North Dakota. Both the digital regulatory Flood Insurance Rate Map (FIRM) data (where available) and the BLE data are available. Users can visualize the extents of flood events with a 10-percent, 4-percent, 2-percent, 1-percent, and 0.2-percent-annual-chance of occurring. The 1-percent-annual-chance flood event is also known as a base flood (it is "Special Flood Hazard Area" reflected on regulatory FIRMs). Whatever the status of their regulatory FIRMs, users can use NDRAM to display BLE data showing floodplains that reflect the current flood risks, as well as the associated technical engineering information supporting those approximate floodplain delineations.

The new tool also provides water surface elevations and flood depths, and users can download engineering model data and print customized maps. Another exciting feature of the tool is its ability to display real-time weather warnings from across the State; this is especially useful for planning, mitigation, and disaster recovery actions. This function of NDRAM was made possible by the National Climatic Data Center's Next Generation Weather Radar.

> **"In North Dakota, a lot of these areas have never been mapped until the base level engineering."**
>
> *— Dionne Haynes, State National Flood Insurance Program Coordinator*

The sample graphic shown uses the city of Beulah to demonstrate how the BLE data will be displayed by NDRAM. Users will be able to choose a property, and the map service will provide relevant flood risk data. In this example, the small "target" at the bottom-center of the image represents the property chosen; the left-hand side of the screen is automatically populated with information, including elevation, flood zone, water surface elevations, and even the depth of flooding during a 1-percent-annual-chance event. This BLE data meets the specifications and guidelines of a FEMA approximate study.

"The entire goal behind this platform is to educate and communicate risk."

— Laura Horner, State Risk MAP Coordinator with the Water Commission.

NDRAM TRAINING — COMING SOON!

The Water Commission will be hosting technical NDRAM demos and training sessions in March 2020. The training will be scheduled at several locations across the State and is geared towards residents, emergency managers, the technical community, and civic leaders who want to learn more about using NDRAM.

NDRAM will be especially useful to North Dakotans, considering the State's long history of large flood events. This new tool will help residents and communities be better informed about flood risk and thus be more prepared and resilient. Forward any questions regarding NDRAM to Laura Horner, North Dakota's Risk MAP Coordinator, at 701-328-2759 or lmhorner@nd.gov.

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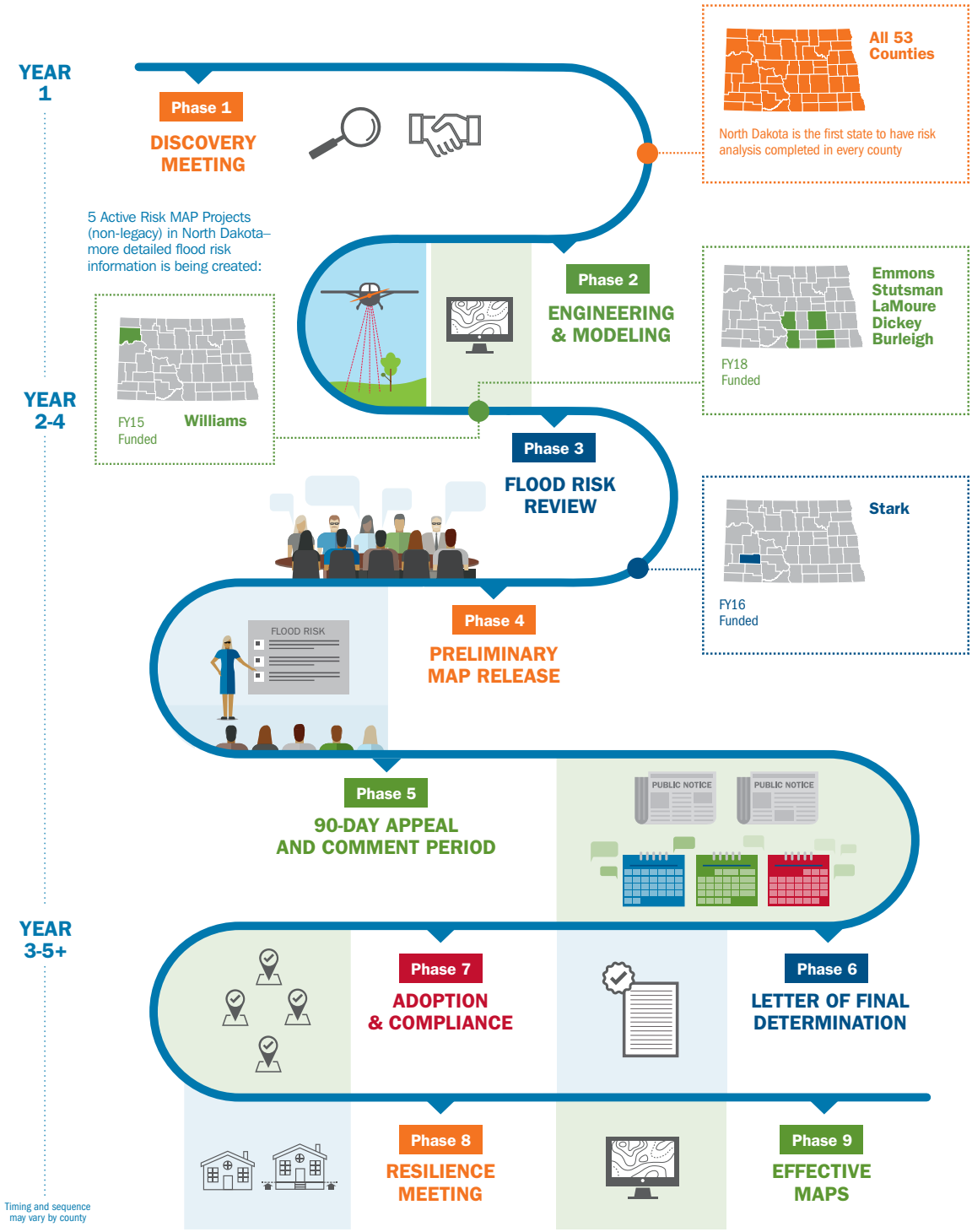
NORTH DAKOTA RISK MAP UPDATE

YOUR COUNTY'S RISK MAP PROGRESS



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